UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,430	02/08/2007	Martin Schweizer	7865-262 MIS:jb	6351

24223 7590 07/28/2010

SIM & MCBURNEY
330 UNIVERSITY AVENUE
6TH FLOOR
TORONTO, ON M5G 1R7
CANADA

EXAMINER	
WINSTON, RANDALL O	

ART UNIT	PAPER NUMBER
1655	

MAIL DATE	DELIVERY MODE
07/28/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,430	SCHWEIZER ET AL.	
	Examiner	Art Unit	
	Randall Winston	1655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☒ Claim(s) *27 and 28* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement is made of receipt and entry of the application filed on 02/08/2007.

Claims 1-28 have examined on the merits.

Claim Objections

Claims 27-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Double Patenting

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-27 of U.S. Patent 7,645,468. Although the conflicting claims are not identical, they are not patently distinct from each other because in both cases, the claims are drawn to a process of

preparing a canola protein isolate of reduced pigment within the claimed protein content comprising the utilization of the overall combined same claimed steps. Further, the instantly claimed invention encompasses and/or is encompassed by the claimed invention of 7,645,468.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Higgs et al. (US 6,955,831).

Applicant claims a method of forming a canola oil see meal which comprises of heating the canola oil seed to deactivate enzymes therein, dehulling the canola oil seed, and removing canola oil from the heat treated and dehulled oil seeds to provide said canola oil seed meal.

Higgs anticipates the claimed invention because Higgs teaches a method of forming a canola oil see meal which comprises of heating the canola oil seed to deactivate enzymes therein, dehulling the canola oil seed, and removing canola oil from the heat treated and dehulled oil seeds to provide said canola oil seed meal (see, e.g.

entire patent including abstract and claims). Therefore the reference is deemed to anticipate the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higgs et al. (US6,955,831) in view of Cisneros (US 6,808,621).

Applicant claims a method of forming a canola oil seed meal which comprises of heating the canola oil seed to deactivate enzymes therein, cooling the heat treated canola seeds, cracking the hulls and than dehulling of the heat treated canola oil seeds, wherein said heat treated and dehulled oil seeds are flaked prior to said oil removal step and wherein an over and an under fractions are separated from the cracked hulls and removing canola oil by solvent extraction from the heat treated and dehulled oil seeds to provide said canola oil seed meal wherein the canola oil seed meal is processed to recover therefrom a canola protein isolate having a protein content the claimed percentage.

Higgs teaches a method of forming a canola oil seed meal which comprises of heating the canola oil seed to deactivate enzymes therein, cracking the hulls (i.e. by mechanical treatment) and than dehulling of the heat treated canola oil seeds, wherein an over and an under fractions (i.e. the under fraction is subjected to air aspiration) are

separated from the cracked hulls and removing canola oil by solvent extraction from the heat treated and dehulled oil seeds to provide said canola oil seed meal (see, e.g. entire article including abstract and claims).

Higgs, however, does not expressly teach cooling the heated canola seeds and wherein said heat treated and dehulled oil seeds are flaked prior to said oil removal step.

Cisneros benefically teaches that seeds are flaked to facilitate oil removal (see, e.g. column 28 lines 22-37).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Higg's method of forming a canola oil seed meal to include Cisneros's teaching of the seeds are flaked to facilitate oil removal because the above combined two references as a whole would create the claimed invention's method of forming a canola oil seed meal from a canola oil seed. The adjustments of other conventional working conditions (i.e. cooling the heated treated canola oils seeds for better extraction, the substitution of one heating technique for another and the processing step of recovering an isolate with the claimed protein content), is deemed a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan.

Accordingly, the invention as a whole is prima facie obvious to one of ordinary skill in the art at the time the invention was made, especially in the absence of evidence to the contrary.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higgs et al. (US 6,955,831) in view of Murray (US 6,005,076), Murray (US 5,844,086), Cisneros (US 6,808,621), Jones (US 4,158,656) and Carey (US 3,966,702).

Applicant claims a method of forming a canola protein meal and/or isolate comprises of heating at a specific temperature and time the canola oil seed to deactivate enzymes therein, cooling the heat treated canola seeds, cracking the hulls and than dehulling of the heat treated canola oil seeds, wherein said heat treated and dehulled oil seeds are flaked prior to said oil removal step and wherein an over and an under fractions are separated from the cracked hulls and removing canola oil by solvent extraction from the heat treated and dehulled oil seeds to provide said canola oil seed meal wherein the canola oil seed meal is processed to recover therefrom a canola protein isolate and wherein the processed to recover said canola protein isolate is preformed by the steps of extracting the canola oil seed meal to cause solubilization (i.e. solubilization is done with a particular concentration of oil seed meal in the aqueous food grade salt, with a particular solvent such as a food grade salt of sodium chloride and/or using water extraction subsequent to using the food grade product, agitation of the food grade salt for a particular time range and solubilization is also done at a particular temperature and pH) and then continuously conveying said mixture through a pipe while extracting protein from the oil seed meal to form a particular range concentration of an aqueous protein solution, separating the aqueous protein solution from residual canola oils seed meal, after separating conducting a pigment removal step whereas pigment absorbing agent to be mixed with the aqueous protein solution to

prepare a protein isolate of reduced pigment and/or performed by diafiltration (i.e. an anti-oxidant is present in the diafiltration step) of the aqueous protein solution, increasing the protein concentration of an aqueous protein solution by ultrafiltration and/or diafiltration at a particular temperature to produce a particular range concentrated protein solution, diluting the concentrated protein solution with chilled water at a particular temperature to cause formation of protein micelles, settling the protein micelles to form a protein micellar mass and recovering the protein micellar mass from the supernatant.

Higgs teaches a method of preparing a canola protein comprises of heating the canola oil seed at various temperature and time to deactivate enzymes therein, cracking the hulls (i.e. by mechanical treatment) and than dehulling of the heat treated canola oil seeds, wherein an over and an under fractions (i.e. the under fraction is subjected to air aspiration) are separated from the cracked hulls and removing canola oil by solvent extraction from the heat treated and dehulled oil seeds to provide said canola protein (see, e.g. entire article including abstract and claims).

Higgs, however, does not expressly teach within its preparation steps the claimed specific temperature and time to heat the canola oil seed oil to deactivate enzymes therein, cooling the heated canola seeds and/or wherein said heat treated and dehulled oil seeds are flaked prior to said oil removal step and/or the canola oil seed meal is processed to recover therefrom a canola protein isolate having a claimed protein content by the steps of extracting the canola oil seed meal to cause solubilization (i.e. solubilization is done with a particular concentration of oil seed meal

in the aqueous food grade salt, with a particular solvent such as a food grade salt of sodium chloride and/or using water extraction subsequent to using the food grade product, agitation of the food grade salt for a particular time range and solubilization is also done at a particular temperature and pH) and then continuously conveying said mixture through a pipe while extracting protein from the oil seed meal to form a particular range concentration of an aqueous protein solution, separating the aqueous protein solution from residual canola oils seed meal, after separating conducting a pigment removal step whereas pigment absorbing agent to be mixed with the aqueous protein solution to prepare a protein isolate of reduced pigment and/or performed by diafiltration (i.e. an anti-oxidant is present in the diafiltration step) of the aqueous protein solution, increasing the protein concentration of an aqueous protein solution by ultrafiltration and/or diafiltration at a particular temperature to produce a particular range concentrated protein solution, diluting the concentrated protein solution with chilled water at a particular temperature to cause formation of protein micelles, settling the protein micelles to form a protein micellar mass and recovering the protein micellar mass from the supernatant.

Both Murray et al. benefically teach a method of preparing a canola protein isolate which comprises extracting an canola oil seed meal to cause solubilization (i.e. solubilization is done with the same solvent such as a food grade salt of sodium chloride, agitation of the food grade salt at the same time range and solubilization is also done at a similar temperature and pH) of a protein to form a similar concentration of an aqueous protein solution, separating the aqueous protein solution from oil seed or

canola oil seed, increasing the protein concentration by the same method of ultrafiltration and/or diafiltration to intrinsically produce the same concentrated solution, diluting with water at a similar temperature to cause formation of protein micelles, settling the protein micelles, and recovering the protein micellar mass whereas to produce a dried product (i.e proteinaceous powder) of a similar protein content (see, e.g., entire patent).

Cisneros benefically teaches that seeds are flaked to facilitate oil removal (see, e.g. column 28 lines 22-37).

Jones benefically teach in order to purify and/or detoxify the canola seed meal, one can utilize an antioxidant extraction step (i.e. the anti-oxidation extraction step performed in the diafiltration step) to purify. Jones also teaches that pigment removed from the oil seed is beneficial because color is highly undesirable in many foods. (see, e.g. abstract, column 3 lines 20-27, column 4 lines 16-68, column 5 lines 1-15)

Carey benefically teaches the adsorbing agents (i.e. activated carbons) are beneficial to decolorize the protein material in oil seeds when producing oil seed protein isolates (see, e.g. abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Higg's method of preparing a canola protein to benefically include the claimed preparation steps and/or teachings of both Murray's preparation steps of preparing a canola protein isolated as well Jones and Carey's preparation step of pigment removal of a canola and Cisneros's teaching of the plant seeds are flaked to facilitate oil removal within Higg's method of preparation steps because the overall

above combined teachings would create the claimed invention's canola protein meal and/or isolate of reduced pigment within the claimed protein content comprising the utilization of the overall combined steps of the cited references. The adjustments of other conventional working conditions (i.e. to modify the claimed temperature and time to heat the canola oil seed oil not to deactivate enzymes therein, cooling the heated treated canola oils seeds for better extraction, the substitution of one heating technique for another and the processing step of recovering an isolate with the claimed protein content and to interchange batch mode with continuously), is deemed a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan. Furthermore, as the references indicate the various different steps used by the claimed method is result variable, therefore, they could be routinely optimized by one of ordinary skill in the art of practicing the invention disclosed by the references. (Please note the selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results. (see, e.g., *Ex parte Rubin*, 128 USPQ 440, 1959, and *In re Burhans*, 154 F.2d 690, 69 USPQ 330-CCPA 1946) MPEP 2144.04.

Accordingly, the invention as a whole is prima facie obvious to one of ordinary skill in the art at the time the invention was made, especially in the absence of evidence to the contrary.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randall Winston whose telephone number is 571-272-0972. The examiner can normally be reached on 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RW

/Christopher R. Tate/
Primary Examiner, Art Unit 1655